Country risk management: Making societies more resilient
Societies are becoming more vulnerable as the risks they face become more interconnected. Integrated risk management approaches can help countries identify and prepare for risks. A country risk officer could act as a focal point in the process of systematic risk management and provide a public face.
Country risk management:
Making societies more resilient

Early identification and prioritisation of risks enable societies to increase their resilience by preventing, reducing or adapting to them, including measures to finance economic losses before an event occurs through risk transfer solutions. Such an all-hazard approach demands a high-level of coordination across government, political and private sector bodies. A country risk officer could be responsible for managing such a prioritised risk landscape, taking an holistic approach to risk management before events occur and ultimately reducing the risk burden to society.

The public sector is increasingly looking into integrated risk management approaches. In the past, the primary concern was civil protection in the event of war or natural disaster. Given the diversity and interconnectedness of contemporary risks – from economic and financial to environmental, societal and political risks – the focus has now shifted to comprehensive country risk management approaches. Climate change, for instance, presents a challenge to societies, leading to more severe storms, flooding and droughts as well as potentially having a major impact on agricultural yields. The general public expect their governments to provide them with safety nets and protection, even with limited resources. Ultimately, whenever a disaster strikes, governments and taxpayers are typically required to bear the cost of aid and relief.

From disaster risk reduction to country risk management

Earthquakes, storms, droughts, floods, pandemics, energy and food security, financial, human life, private property, public and corporate assets and infrastructure. Globally, 2008 was one of the worst years for catastrophe losses. More than 240,000 people lost their lives. The total economic loss added up to USD 270 bn., of which only USD 52 bn. was insured. While 2009 was a below-average year, which claimed 15,000 lives and caused overall cost to society of USD 62 bn., we have seen major events again in 2010. These include flooding in Pakistan and China, drought and wildfires in Russia and Australia, earthquakes in Chile, Haiti and New Zealand, and winter storms across Europe. Aside from insurance companies, governments, individuals and corporations must often foot the bill. Such a cost burden can lead to higher levels of government or personal indebtedness and asset depletion, as well as the need by governments to raise taxes and/or defer planned investments, all of which can have knock-on effects for growth. Coping with the impact of events such as the recent financial crisis simply increases this burden. Overall, events such as these call for thoroughly planned and coordinated response measures not only on the national but also on the international level.

But which risks are most likely to occur and to cause a country to suffer major loss? Where should the state deploy its financial resources in order to improve protection measures and ensure that appropriate emergency plans are in place? Who evaluates the required mix of prevention, preparation, response and recovery actions and their financing? Are these tasks for national governments, or can they be handled by a province or municipality? Who is responsible for managing these risks? Which risks can or even should be transferred to the insurance market or capital markets? How can the various ministries and government agencies best work together? How, too, can these efforts be coordinated at the international level as practically and effectively as possible?

In general, there is little consensus in societies and politics as to how risks, and their management, should be prioritised – with the exception of the protection of lives. People consider risks from different angles depending on their culture and values, their political stance or most recent events. Risk management is exposed to trade-offs between the most imminent versus the most dangerous risks and between “chronic” versus “spectacular” or also novel risks. Furthermore, the short-term view often prevails on the political level and those risks that are treated preferentially are the “low-hanging fruits”, ie where remedial action can be identified quickly and unambiguously, where results are visible early, and where successes can be clearly attributed.

Which risks are societies willing to accept and what is the real cost of providing security against unacceptable risks? These are questions a country risk officer could be dealing with. He or she could be responsible for managing such a prioritised risk landscape, taking an holistic approach to risk before events occur. New tools have been developed through the discipline of integrated risk management that could support the country risk officer, building on the work already undertaken by governments and improving collaboration between the public and private sector.
Integrated risk management approaches

Integrated risk management enables political and public sector decision-makers to determine their priorities in advance, in order, wherever possible, to minimise risks and, where necessary, to transfer the costs. For example, hazard mitigation has for a long time been the prevailing approach for dealing with events and (high frequency) incidents, usually allocating one type of hazard to one responsible public or private agency to deal with.

As a rule, integrated risk management consists of four stages (see figure 1):

1. The identification of risks and potential risk scenarios across all categories at an early stage and creating awareness, including constantly reviewing the changing risk landscape.
2. Risk assessments including the quantification of risks according to the likelihood of their occurrence and the severity of the impact should they occur. In addition, the interdependency of risks must be assessed.
3. Risk mitigation, i.e. the reduction or avoidance of risk by means, for example, of construction measures or behavioural changes.
4. Adaptation to risk, i.e. including reconstruction measures and measures to finance economic losses, such as risk transfer mechanisms.

These four stages are overlaid by appropriate risk governance structures, i.e. the organisation and clear allocation of roles and responsibilities to and by the relevant bodies.

Comprehensive identification and assessment of risks

The starting point of the integrated risk management approach is the evaluation of risk: this involves identifying and assessing the various perils such as economic/financial risks, political risks, environmental risks, technology risks, societal/health risks in terms of their frequency (likelihood of occurrence) and severity. For instance, the government of Singapore runs a comprehensive risk evaluation process across ministries and agencies including scenario planning through its Risk Assessment and Horizon Scanning programme (RAHS).

A process such as this inevitably raises many questions including: How often do catastrophes occur, and what impact do they have? What might be the direct and indirect consequences of a loss event? What are the domino effects that an event and the aid measures that follow it might have on the environment and the population’s social structure and behaviour? The United Kingdom, for example, tried to ascertain not only how many people would fall ill and die in a flu pandemic and what the direct consequences of this would be, but also how a flu pandemic would affect the way people behaved. Estimating the likelihood of occurrence and the consequences thereof is inevitably a highly uncertain business. The statistical studies and models developed by academic researchers can help to limit at least some of the uncertainties associated with risk assessments. Another source of valuable input is the cooperation of governments with the private sector, for example with insurers, who have in-depth knowledge of how to quantify and manage a variety of risks.

Figure 1: The four stages of risk management

Identification Assessment Mitigation Adaption
Prioritisation as the basis for resource allocation
The knowledge gained through a comprehensive risk identification and assessment process can then be presented to the decision-makers, offering them an appropriate basis on which to take decisions about the optimal use of limited resources to prevent, mitigate or transfer the risks. A risk map is a useful tool as it provides an overview of the possible risk scenarios and their respective likelihoods and severities. It can foster a shared understanding of risk, making a major contribution to the political opinion-forming process and to the creation of a social consensus as to which risks should be given priority. A risk map provides decision-makers with the basis to tackle two very different issues: first, the question as to which risks are acceptable to society and which are not, and as to how much society’s security might be allowed to cost, and, second, the question of which resources are needed in order to reduce risk, to transfer it, and – if a catastrophic event occurs – to set the necessary measures in motion.

One example of a comprehensive risk map is the Global Risk Landscape, produced in the World Economic Forum’s Global Risks Report. The map (see figure 3) was compiled in conjunction with Citigroup, Marsh & McLennan Companies (MMC), Swiss Re, Wharton School Risk Center and Zurich Financial Services.

Only a few countries have so far gained experience of all-round, integrated analysis and assessment of their risks. Recently, the idea of an holistic approach has been adopted in some countries. Switzerland, for example, produced the risk analysis “Switzerland XXI” in 2003, in a one-off project with the Centre for Security Studies at the Swiss Federal Institute of Technology, Zurich (ETHZ).1 The “Federal Office for Civil Protection” is now taking integrated risk management a step further. The UK’s “Civil Contingencies Secretariat” is another example; it monitors risks, indicates when action is required and performs a coordinating role in the event of a real emergency (see box below).

Singapore, as mentioned earlier, has set up a section within the Prime Minister’s office to coordinate the various ministries and agencies dealing with a variety of risk scenarios. In the US, the Office of Risk Management and Analysis is responsible for “synchronizing, integrating, and coordinating risk management and risk analysis approaches within the Department of Homeland Security”.2 In Germany, a Green Paper was produced in 2008 by the “Forum on the Future of Public Safety and Security”.3

The United Kingdom National Risk Register
The United Kingdom is considered a pioneer in integrated risk assessment. In 2008, the UK published its first “National Risk Register” incorporating a risk map which gives an overview of potential risks and the extent of the losses associated with them. Updated in 2010, it also presents a detailed list of all the loss events that might be significant enough to make government intervention necessary and provides advice for organisations and private individuals on how they can prepare themselves for a loss event.

Figure 2: United Kingdom National Risk Register 2010

1 As early as the 1960s, Switzerland discussed the possibility of creating the position of a “civilian chief of staff” who would have responsibility for coordinating the response to all non-military threats and risks. Eventually, this concept was not implemented.
2 http://www.dhs.gov/xabout/structure/gc_1185203978952.shtml
3 Zukunftsforum Öffentliche Sicherheit
Figure 3: Global Risks Landscape 2010


**Economic Risks**
1. Food price volatility
2. Oil price spikes
3. Major Fall in the US $
4. Slowing Chinese economy (<6%)
5. Fiscal crises
6. Asset price collapse
7. Retrenchment from globalization (developed)
8. Retrenchment from globalization (emerging)
9. Burden of regulation
10. Underinvestment in infrastructure

**Geopolitical Risks**
11. International terrorism
12. Nuclear proliferation
13. Iran
14. North Korea
15. Afghanistan instability
16. Transnational crime and corruption
17. Israel-Palestine
18. Iraq
19. Global governance gaps

**Environmental Risks**
20. Extreme weather
21. Droughts and desertification
22. Water scarcity
23. NatCat: Cyclone
24. NatCat: Earthquake
25. NatCat: Inland flooding
26. NatCat: Coastal flooding
27. Air pollution
28. Biodiversity loss

**Societal Risks**
29. Pandemic
30. Infectious diseases
31. Chronic diseases
32. Liability regimes
33. Migration

**Technological Risks**
34. Critical information infrastructure (CII) breakdown
35. Nanoparticle toxicity
36. Data fraud/loss
Figure 4: Risks interconnection map 2010

**Appropriate risk mitigation measures**

Risk prevention and mitigation strategies can then be devised on the basis of the risk assessment, thus ensuring that public and private efforts are focused on those risks that are considered most important. Risks may be prevented or mitigated by a wide variety of means, among them legal provisions, for example through regional planning, the building of dams, warehousing of vaccines or the creation of conditions that allow the private sector to take on its share of the risks. “Every dollar spent on risk mitigation saves society on average four dollars in potential future losses” – that was the conclusion arrived at by the Multihazard Mitigation Council, part of the US National Institute of Building Sciences, in 2005.

**Risk transfer as an element in adaptation**

Although action to mitigate risk should be the first priority, there are still many events that cannot be prevented or where prevention may be prohibitively expensive. Clearly, no society can afford to prevent damage from each and every flood, especially those that are the least likely to actually occur. Such events make it necessary to devise emergency plans and secure finances for the recovery effort. A paradigm shift is required to move away from efforts to fund recovery plans for disasters after they occur to securing funds before the event through (re)insurance and/or capital market-based solutions. Such solutions offer not only enhanced financial security, but also the possibility of rapid access to funds in the event of a catastrophe.

For each risk the question should be asked as to who would bear the costs of an event and whether the status quo is the most effective risk sharing mechanism? A storm or earthquake affects not only homeowners and insurers; banks may also suffer as the collateral attached to their mortgages is drastically reduced. Another consideration is that infrastructure is rarely insured, and so the state – as well as generally funding the aid and recovery operations – must, as insurer of last resort, bear a large proportion of the costs involved in large losses. In addition, future tax income may be impacted due to catastrophes. In light of the fiscal implications of large-scale events, the question as to what proportion of risk should be borne by the public and what should be “privatised” is critical.

Some risks, however, are difficult to insure for the private sector and some are even uninsurable. This is where the partnership between the insurance industry and the public sector becomes even more important. For example, it is difficult or even impossible to calculate the probability of terrorist attacks or the extent of the damage done by them, and the losses involved can exceed the insurance industry’s capacities. Government support is needed therefore to develop insurance solutions, take action to deter terrorism and devise plans to handle emergencies.

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**Innovative risk transfer solution for the public sector**

In recent years, Swiss Re has devised a number of innovative solutions for the public sector and for non-profit organisations.

- In 2010, Swiss Re formed an agreement with the Alabama State Insurance Fund to provide a three-year parametric insurance cover for the SIF’s primary catastrophic hurricane exposure. The transaction marked the first time a US state government used such an innovative solution to transfer its financial exposure from natural catastrophes to the private sector.
- Swiss Re is the lead reinsurer of the Caribbean Catastrophe Risk Insurance Facility (CCRIF), an innovative, multi-country risk transfer solution that forms an integral part of the region’s climate adaptation strategy. It provides 16 Caribbean governments with short-term liquidity in the event of hurricanes and earthquakes.
- Swiss Re, the World Bank and the Mexican Government created MultiCat Mexico 2009. Based on a parametric approach, this cat bond runs for three years. The payout is linked directly to pre-defined triggers, in this case related to the strength of an earthquake measured in Magnitude terms, or for the windstorm part related to the lowest air pressure measurement as a key indicator for hurricane strength. In 2008, Swiss Re joined the World Bank’s International Development Association in issuing a weather derivative to protect farmers in Malawi against the loss of maize production as a consequence of drought. Payments are triggered when lack of rain - measured by reference to an index - adversely affects maize production.

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**Figure 5: Who pays for the risk? (example for purpose of illustration)**

![Diagram of probability and impact on country, showing distribution among public sector, insurers, individuals, corporates, and banks.](source: Swiss Re)
The case for a country risk officer
Who evaluates this mix of prevention, preparation, response, recovery and risk transfer actions across different risks? And who takes responsibility for international coordination as many catastrophes do not stop at the national border? That is a challenging task as differences in risk perceptions not only occur among individuals but also between countries, given the differences in their culture and risk perceptions.

A country’s coastguard, for example, may have a sophisticated risk management approach. What is often missing at the next level is the coordination and monitoring of the coastguard’s efforts, together with those of veterinarians monitoring bird flu and engineers working on measures to counteract flooding. This is a role that would be performed well by a country risk officer.

A country risk officer would act as a central point of contact for the purpose of managing a comprehensive multi-area risk portfolio. Such an “all-hazards approach” demands a high degree of coordination between the various levels of government and administration, private-sector operators and the insurance industry, also reflecting the interconnectedness of the risks faced (see figure 5). Crises cannot be prepared for and managed in the best possible way without unhindered communication between the various offices and departments involved. The country risk officer can take on this role, make use of synergies and avoid duplication within government offices by ensuring that the plans for a variety of risk scenarios are implemented in a coherent and effective way. This seems particularly topical in the current environment where many governments are making funds available to stimulate the economy in the wake of the financial crisis, which could serve to reduce the vulnerability to other risks such as climate change or ageing infrastructures. The country risk officer could also handle the international coordination of cross-border risks.

The country risk officer’s job description
The country risk officer would have a job description, which might well look like this:

- Identifying risks in collaboration with scientific experts and the insurance industry
- Assessing expected frequency and severity of risks and compiling a national risk map
- Engaging in risk dialogue with government departments, parliaments and the public, and across national borders
- Coordinating action to manage large-scale risks nationally and internationally
- Implementing measures and catastrophe plans
- Organising test runs and training sessions for catastrophe plans
- Liaising with comparable offices in other countries with regard to cross-border risks

Good risk governance is about building a dedicated risk management function with clear definitions of roles and responsibilities that sets out who “takes”, “owns” and “controls” risks.
Risk governance: defining roles and responsibilities

Proper risk governance is essential to the execution of systematic risk management. It involves organising a dedicated risk management function, defining its role and responsibilities, and controlling its proper functioning. It requires, in particular, that its role is clarified compared to existing government departments or agencies that already manage the risks associated with their mandate.

The risk owner ultimately bears the consequences of an event occurring. The risk owner therefore has to define the country’s risk tolerance and its overall policy. This is a core task of the government, which is, in a democratic system, ultimately responsible to the parliament, representing society at large. Depending on the political structure of the country, it may also be the responsibility of the premier or president. In the private sector, the equivalent bodies are senior management and the board of directors. The “risk takers” are the ministries and government agencies implementing the government’s programme. They have a responsibility to manage risks associated with their activities and can be considered as the risk managers on the first level. Examples include the state’s transport agencies, coastguard, public utilities, hospitals or central banks. In the private sector business divisions or units responsible for one line of business typically represent the “risk takers”.

At the second level, the risk controller comes into play. In the public sector, this could be the country risk officer who would ensure systematic integrated risk management, and oversee and coordinate the risk-related measures in various areas such as the coastguard, the bird flu early-warning system and building work to counteract flooding, similar to the function of the chief risk officer in the private sector.

At the third level, independent assurance is required, a role performed by the internal audit department in the private sector, which independently reviews all measures and decisions taken. The country risk officer provides the necessary basis to take decisions and it is for this reason that his position always has a political dimension to it.

Conclusion

Although public authorities have for a long time concentrated on reducing the impact of disasters, the systematic management of risk is becoming increasingly important and indeed expected by the tax-paying public. Forward-looking and comprehensive risk identification and disclosure are needed if limited public resources are to be allocated in the best possible way. A country risk officer could lend weight to the process of systematic risk management and give it a public face. Supported by a portfolio of mitigation options, the country risk officer would be in a position to build on the work already undertaken by governments. They could also help to improve collaboration across the public sector, private businesses and academia. They could play an important role in developing new partnerships to transfer risks and finance economic losses. Finally, the country risk officer would be ideally positioned to coordinate global efforts as might be required in the face of the multifaceted risk scenarios which today’s world presents to us.
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